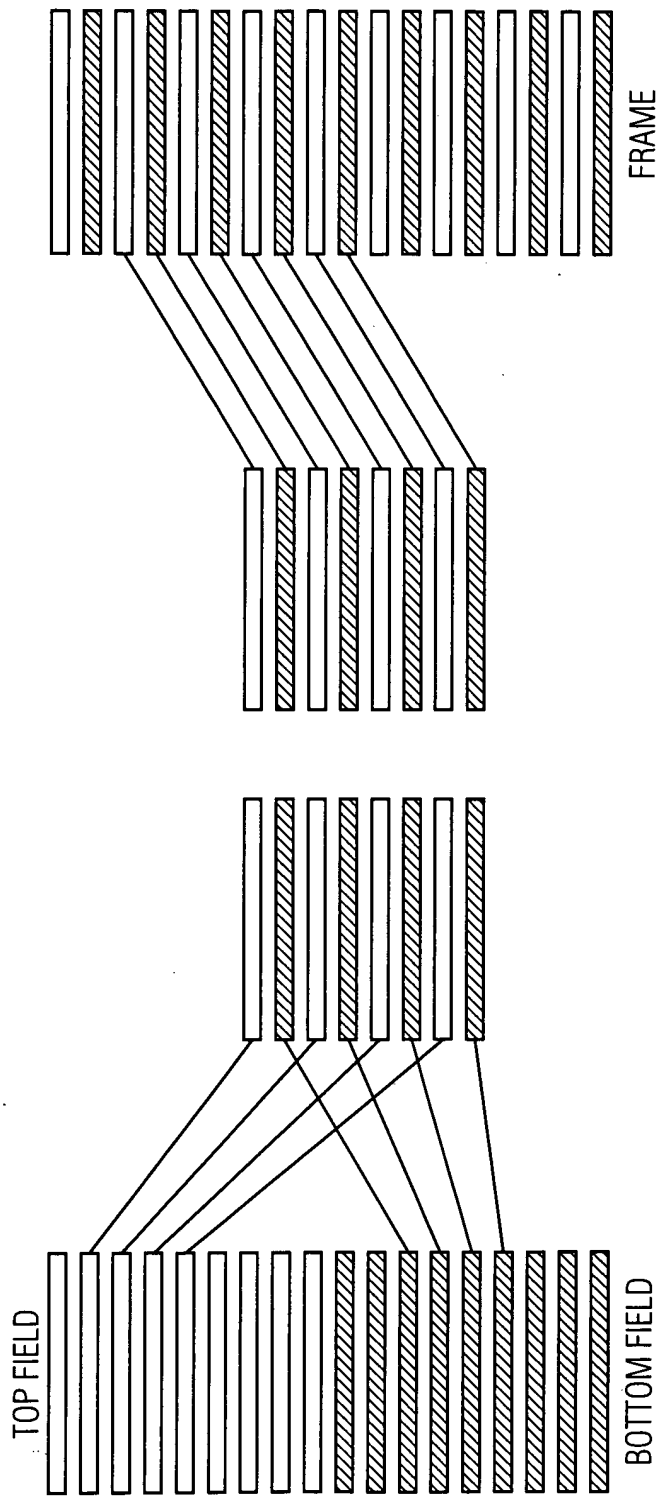

FIG. 1

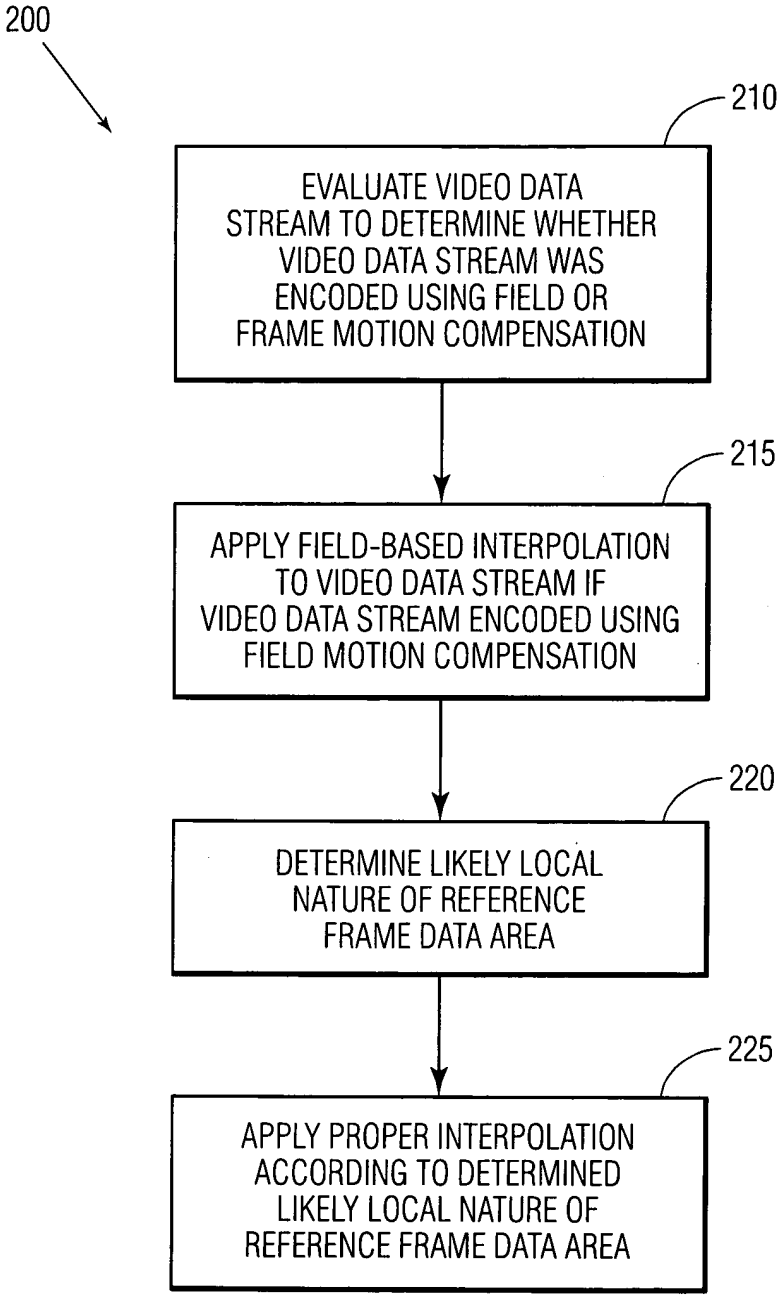
200
210
EVALUATE VIDEO DATA STREAM TO DETERMINE WHETHER VIDEO DATA STREAM WAS ENCODED USING FIELD OR FRAME MOTION COMPENSATION
215
APPLY FIELD-BASED INTERPOLATION TO VIDEO DATA STREAM IF VIDEO DATA STREAM ENCODED USING FIELD MOTION COMPENSATION
220
DETERMINE LIKELY LOCAL NATURE OF REFERENCE FRAME DATA AREA
225
APPLY PROPER INTERPOLATION ACCORDING TO DETERMINED LIKELY LOCAL NATURE OF REFERENCE FRAME DATA AREA

FIG. 2

		TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5
REDUCED RESOLUTION	dy = MV mod 1	0	1/4	1/2	3/4	0*(1)
FULL RESOLUTION	dy = MV mod 2	0	1/2	1	1 1/2	0*(2)

FIG. 3

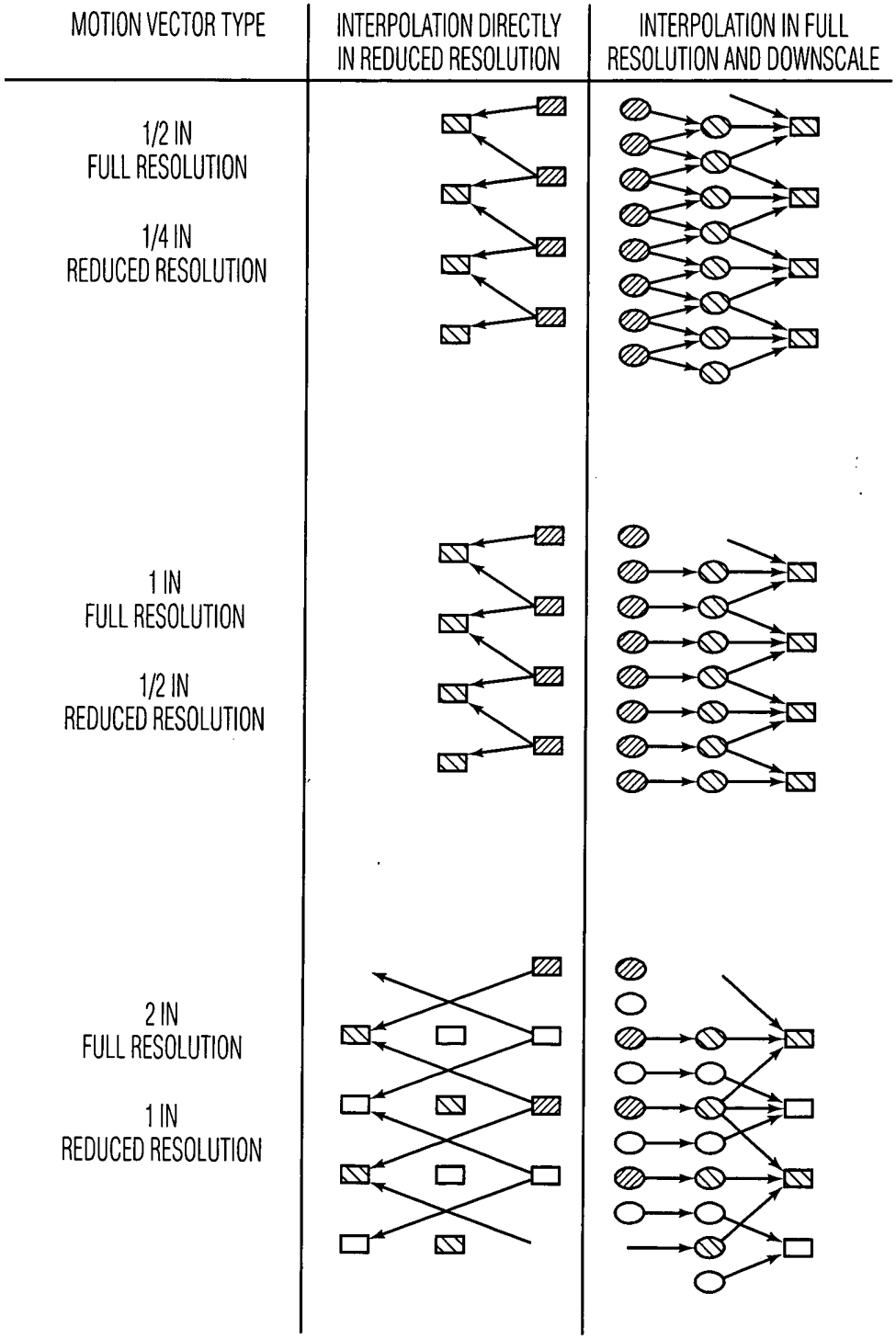
MOTION VECTOR TYPE
INTERPOLATION DIRECTLY IN REDUCED RESOLUTION
INTERPOLATION IN FULL RESOLUTION AND DOWNSCALE
1/2 IN FULL RESOLUTION
1/4 IN REDUCED RESOLUTION
1 IN FULL RESOLUTION
1/2 IN REDUCED RESOLUTION
2 IN FULL RESOLUTION
1 IN REDUCED RESOLUTION

FIG. 4

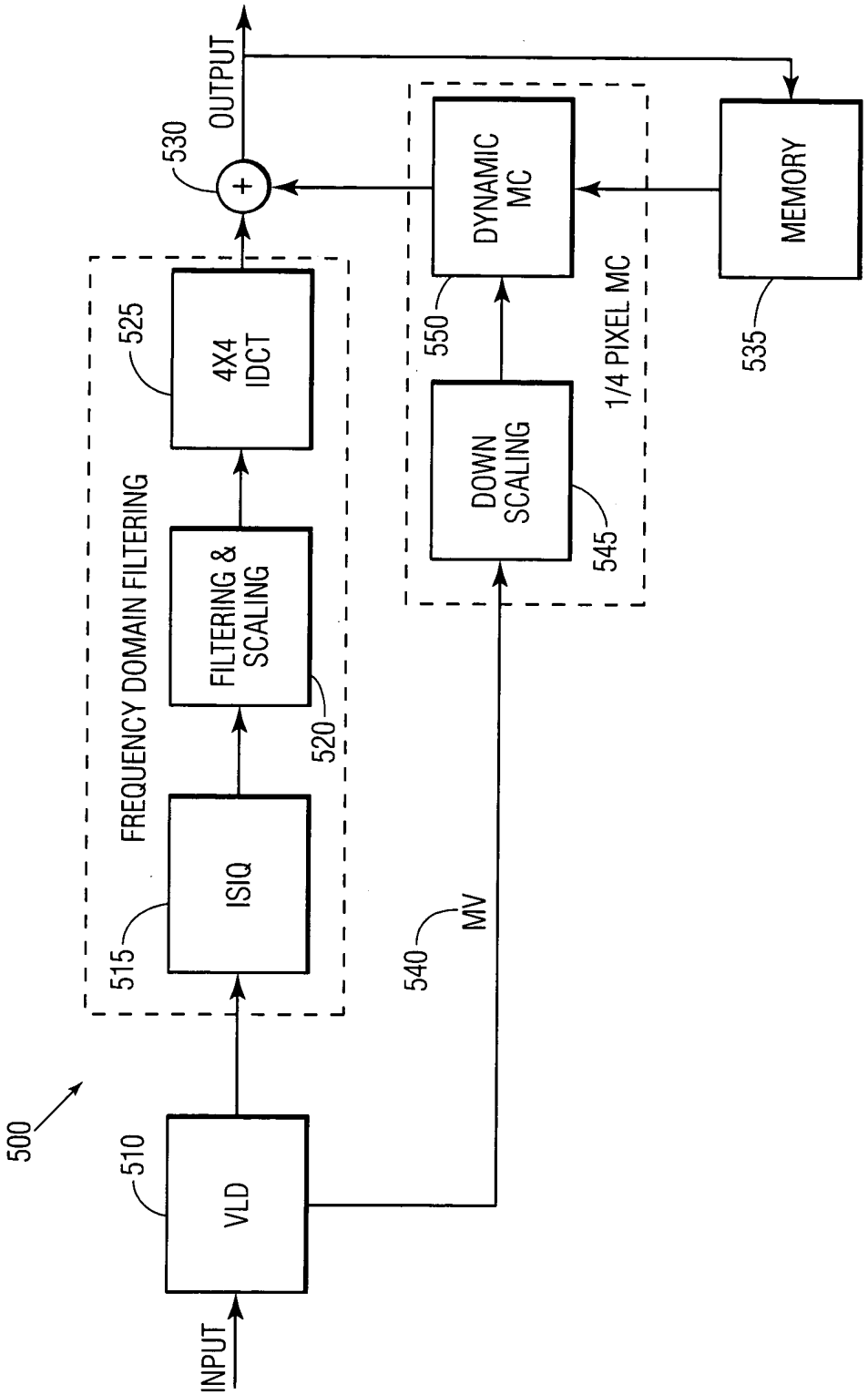
500
INPUT
VLD
510
ISIQ
FREQUENCY DOMAIN FILTERING
515
FILTERING & SCALING
520
4X4 IDCT
525
530
OUTPUT
+
MV
540
DOWN SCALING
545
1/4 PIXEL MC
DYNAMIC MC
550
MEMORY
535

FIG. 5